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09/883,347	06/19/2001	Thomas Griffith	108342	4057

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EXAMINER

ADHAMI, MOHAMMAD SAJID

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Period for Reply

WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2002.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 12 line 6, "by a number of bit-errors 512", reference 512 should be 550.

Appropriate correction is required.

Claim Objections

2. Claims 13 and 21 are objected to because of the following informalities: In claim 13 line 5, the word "on" is missing between the last two words "based the". In claim 21 line 5, "of" should be placed between "one the" and "different that the size" should be "different than the size." Appropriate correction is required.

For examining purposes, it will be assumed that line 5 on page 25 of claim 13 is supposed to read "having a second segment size, wherein the second segment size is determined based on the"

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7,9-11,13-18, 20,24-29,31,32, and 34-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Mayor (US 6,859,463).

Re claim 1:

Mayor teaches "receiving a first signal over a wireless link; determining one or more first status conditions associated with the wireless link based on the first signal; and receiving one or more first segments from a first channel of the wireless link having a format, wherein the format is determined based on the one or more first status conditions" (Col. 3 lines 27-31 "operations parameters are selected for transmitting a signal (e.g., a message packet) over a communication channel of a network by first determining RF conditions on the communication channel from a received signal" where the "segment" received is a message packet).

Re claim 2:

Mayor teaches a format that "includes a first segment size" (Col. 3 lines 39-40 "The parameters to be set may include...packet length").

Re claim 3:

Mayor teaches "transmitting first status information over the wireless link" (Col. 4 lines 54-57 "Each node communicates with other nodes...and maintains and updates a separate system state vector of parameters" where the parameters are the first status information).

Re claims 4,5, and 6:

Mayor teaches [Claim 4] "the first status information [including] at least one first status condition" that is [Claim 6] "at least an indication of the first segment size", and [Claim 5] "determining the first segment size" (Col. 3 lines 39-40 "The parameters to be set may include, for example, data rate and type, packet length" where setting the packet length would be determining the first segment size).

Re claim 7:

Mayor teaches a "wireless link...based on a continuous communication technique" (Col. 1 lines 37-39 "the communications network is required to maintain a...continuous...communication).

Re claims 9 and 10:

Mayor teaches [Claim 9] "receiving first data from a wireless device" [Claim 10] "wherein in the wireless device is a mobile wireless device" (Col. 1 lines 59-60 "Communications systems such as Cellular Communications" where cellular communications involve mobile wireless devices and Col. 3 line 31 "a received signal" where it is known that the signal contains data) and [Claim 9] "packaging the first data into one or more first segments" (Col. 3 lines 28-29 "transmitting a signal (e.g. a message packet)").

Re claim 11:

"Mayor teaches "sending a first acknowledgement for at least one first segment over the wireless link" (Col. 8 lines 29-31 "If the destination node

successfully receives the information message, the destination node replies to the source node with a final acknowledge (ACK) message”).

Re claims 13-17, and 20:

Mayor teaches [Claim 13] “determining one or more second status conditions associated with the wireless link; and receiving one or more segments from the first channel wireless link having a second segment size” (Col. 3 lines 27-31 “operations parameters are selected for transmitting a signal (e.g., a message packet) over a communication channel of a network by first determining RF conditions on the communication channel from a received signal” where the “segment” received is a message packet), [Claim 13 and 20] wherein the first and second segment sizes are determined based on the one or more first and second segment status conditions, respectively, where the status conditions are [Claim 14] “at least an error rate associated with the first channel”, [Claim 15 and 16] “a signal noise level associated with the first channel and an interference level associated with the first channel”, and [Claim 17] “wherein the one first status condition is further based on at least a rate of change of an error parameter” (Col. 14 lines 21-23 “the transmit power and packet length may be selected as a function of the received signal power, BER” , where the BER is “a rate of change of an error parameter” and Col. 6 lines 18-20 “may elect to alter one or some of the operations parameters to compensate for or avoid the interference”).

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Re claim 18:

Mayor teaches a wireless link that is a "cellular link" (Col. 1 lines 59-60 "Communications systems such as Cellular Communications" where cellular communications has cellular links).

Re claims 24,31, and 34-37:

Mayor teaches [Claim 24 and 31] "a first interface that receives first data" (Col. 3 lines 30-31 "determining RF conditions on the communication channel from a received signal" where "one or more wireless segments" can be received), [Claim 24] "a segment forming device that packages the first data into one or more first segments, wherein the size of the first segments is based on one or more first status conditions" where the status condition is at least [Claim 34] "an error rate", [Claim 35] "a signal level", [Claim 36] "a noise level associated with the wireless link and an interference level associated with the wireless link", and [Claim 37] "a rate of change of an error parameter" (Col. 14 lines 21-23 "the transmit power and packet length may be selected as a function of the received signal power, BER" where the BER is "a rate of change of an error parameter" and Col. 6 lines 18-20 "may elect to alter one or some of the operations parameters to compensate for or avoid the interference") and [Claim 24] "a wireless interface that transmits the one or more first status conditions to a remote device using a wireless link" (Col. 4 lines 54-57 "Each node communicates with other nodes...and maintains and updates a separate system

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state vector of parameters" where the parameters are the first status information).

Re claim 25:

Mayor teaches "a status device that determines the size of the first segment" (Col. 3 lines 39-40 "The parameters to be set may include, for example, data rate and type, packet length" where setting the packet length would be determining the first segment size).

Re claims 26 and 27:

Mayor teaches [Claim 26] "the one or more first status conditions are received from the remote device over the wireless link" and [Claim 27] the remote device determining the size of the first segment (Col. 4 lines 54-57 "Each node communicates with other nodes...and maintains and updates a separate system state vector of parameters" where the parameters are the first status conditions and as stated above, the segment size can be set based on these parameters).

Re claim 28:

Mayor teaches "the wireless link is based on a continuous communication technique" (Col. 1 lines 37-39 "the communications network is required to maintain a...continuous...communication).

Re claim 29:

Mayor teaches "the wireless device is a mobile wireless device" (Col. 1 lines 59-60 "Communications systems such as Cellular Communications" where cellular communications have mobile wireless devices).

Re claim 32:

Mayor teaches "an acknowledgement device that generates an acknowledgement signal in response to a received wireless segment" (Col. 8 lines 29-31 "If the destination node successfully receives the information message, the destination node replies to the source node with a final acknowledge (ACK) message").

Re claim 38:

Mayor teaches a wireless link that is a "cellular link" (Col. 1 lines 59-60 "Communications systems such as Cellular Communications" where cellular communications has cellular links).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8,12,19,21-23,30, 33, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayor in view of McHale (US 6,385,203).

Re claims 8,12,19,21-23,30,33, and 39:

As discussed above, Mayor meets all the limitations of the parent claims.

Mayor also teaches [Claim 21] "extracting the first data from the one or more first segments" (Col. 3 lines 28-29 "transmitting a signal (e.g. a message packet)"

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where the signal has been made by extracting data from the "segment") and "wherein the size of at least one of the...segments is different that the size of at least one of the first segments" (Col. 14 lines 21-23 "the transmit power and packet length may be selected as a function of the received signal power, BER" where the packet length ("segment size") can be different than the size of the first "segment" if the length is changed based on the "status conditions")

Mayor does not explicitly disclose receiving/"providing" data from/to a wired network, having a wireless link that is a "satellite-based link", and having segments based on TCP.

McHale discloses [Claims 8,19,21-23,30, and 39] receiving/"providing" data from/to a wired network, using satellite-based links ("Col. 6 lines 11-13 "voice communication network, such as switches, wireline or wireless links, satellites") and [Claims 12 and 33] "one or more first segments...based on transmission control protocol (TCP)" (Col. 5 lines 22-23 and 29-30 "Modem...transmits and receives data in communication system 10 using...transmission control protocol").

Mayor and McHale are analogous because they both pertain to communication systems.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Mayor to include receiving/"providing" data from/to a wired network, having a wireless link that is a "satellite-based link", and having

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segments based on TCP as taught by McHale in order to increase the versatility of the communication system.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takagi (US 6,418,128), Melero (US 6,928,267), and Le-Ngoc (US 6,714,551,) show changing a "segment size" based on "status conditions". Ayerst (US 5,799,012) and Gross (US 6,549,520) show transmitting "status conditions". Dutta (US 6,587,443) and De Baere (US 6,370,126) show a wireless communication system having a satellite-based link and mobile devices.

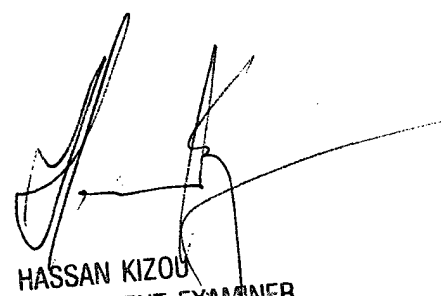
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad S. Adhami whose telephone number is (571)272-8615. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MSA 9/16/2005



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